



PATENT ABSTRACTS OF JAPAN

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YAMASHITA TAKASHI**(54) **FEEDBACK TYPE SWITCHING POWER
AMPLIFIER**

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(57) Abstract:

PURPOSE: To prevent the generation of output waveform distortion over a wide frequency band by properly adjusting the arrangement of a pole and zero in a gain compensation circuit thereby making the frequency characteristic of a voltage amplification factor flat.

CONSTITUTION: A gain compensation circuit is interposed between an input signal source 2 and an error voltage amplifier circuit B in the feedback type switching power amplifier β . A differentiation compensation circuit D is adopted for the gain compensation circuit of the amplifier β . Let a frequency of a pole Q and a zero 0 of the circuit D be ω_{p2} , ω_{z2} then the condition of obtaining a flat gain characteristic to cancel the pole Q and the zero 0 is expressed as $\omega_p = \omega_{wz}$ and $\omega_{p1} = \omega_{p2}$ (where frequencies at low frequency band for the pole Q and the zero 0 are ω_{p1} , ω_z). The flat gain characteristic is realized in the feedback switching power amplifier β having the circuit D with a C₃ and R₇-R₉.

